

## **Dysphagia in the Elderly**

By Rebecca S. Stone, MD  
PGY-5, resident in Otolaryngology

Dysphagia is a remarkably prevalent disorder in the aging population. In independently living populations of > 65 year olds, up to 15% may have dysphagia. In facility-based populations, the prevalence is as high as 40%. Normal effects of the aging process, such as deterioration in salivary gland function or decreased reflexive opening of the upper esophageal sphincter, can be contributing factors to dysphagia, as can stroke or dementia. Finally, medications, including diuretics, anti-cholinergics, anti-histamines, and beta-blockers can lead to or worsen dysphagia due to xerostomia.

As always, a thorough history is helpful. The most important historical details are duration of symptoms, progression of symptoms, weight loss, and frequency of pneumonia. It is useful to divide potential etiologies of dysphagia into structural or functional causes. Structural issues that should be considered are tumors, webs, rings, diverticulum, strictures, and rarely, osteophytes. Symptoms concerning for malignancy include worsening symptoms, weight loss, otalgia, odynophagia, or hemoptysis, especially in a patient who uses tobacco or alcohol or had a prior caustic ingestion. Neurologic functional issues that should be considered are stroke, neurodegenerative diseases like advanced dementia or Parkinson's disease, and vocal cord paralysis. Non-neurologic functional disorders can include achalasia, scleroderma, pain leading to dysphagia, xerostomia and overall muscle weakness and atrophy.

Once a differential is made, the work-up can proceed. A barium swallow evaluates the full length of the esophagus, and can identify esophageal strictures, tumors and peristalsis. Another useful alternative to barium swallow is transnasal esophagoscopy (TNE), which is easily performed at the bedside. The main advantage of TNE over barium swallow is that a biopsy can be obtained immediately. If patients present with symptoms suspicious for aspiration, such as recurrent pneumonias, gurgly vocal quality or coughing with meals, a modified barium swallow (MBS) or functional endoscopic evaluation of swallowing with sensory testing (FEESST) may be more useful. A modified barium swallow (MBS) evaluates the patient's ability to swallow a variety of food consistencies. In the MBS, the focus is on the oral and pharyngeal phases of swallow. In FEESST, videolaryngoscopy is used to assess laryngeal and pharyngeal sensation, vocal cord integrity, elevation of the larynx, and function of the pharyngeal phase of swallow with various food consistencies. FEESST and MBS are often complimentary tests providing information regarding different aspects of the swallow.

When a patient has had a stroke or other event that could affect swallowing, it is important to look for signs that swallowing is impaired (cough after swallow, voice change after swallow, abnormal volitional cough, abnormal gag reflex, dysphonia, and dysarthria). Patients should first be observed carefully during spontaneous swallowing. If no signs of swallowing impairment are noted then the patient may be tested under direct observation using small amounts of clear liquid. If no swallowing dysfunction is noted, the diet may be carefully advanced. However, if any of the signs noted above are exhibited, then the patient should be made NPO and a Speech and Swallow consult should be considered.

Treatment is diagnosis-dependent and may be medical or surgical. A speech pathologist may be able to provide therapeutic swallowing strategies or diet modifications to improve swallow safety and efficacy. Practical modifications as simple as changing the form of medications may help, as elders may not be aware that crushing pills or opening capsules into applesauce can facilitate ease of swallowing them but can alter efficacy. Many benefit from a switch to liquid formulation or even reevaluation of the necessity of some of their medications. Surgical cures of dysphagia are possible for certain diagnoses. Fortunately, many causes of dysphagia are treatable and your patients will be grateful for your attention to this troubling and potentially dangerous problem.

References:

1. ECRI Report: Diagnosis and treatment of swallowing disorders (dysphagia) in acute-care stroke patients. Evidence report/technology assessment No. 8; Siebens H, Trupe EH, Siebens A, Cook F, Anshen S, Hanauer R, et al. Correlates of eating dependency in institutionalized elderly. *J Am Geriatr Soc* 1986; 34(3):192-98.
2. Bending A (2001) Hiding medicines or hiding problems? *Nursing & Residential Care* 3:439-40
3. *American Journal of Speech-Language Pathology* Vol.6 17-24 November 1997. Clinical Assessment of Swallowing and Prediction of Dysphagia Severity, Daniels SK et al.